

Abstracts

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and other treponematoses
(Clinical and therapy; serology and biological false-positive phenomenon; pathology and experimental)
Gonorrhoea
(Clinical; microbiology; therapy)
Non-specific genital infection
Reiter's disease

Trichomoniasis
Candidosis
Genital herpes
Other sexually transmitted diseases
Public health and social aspects
Miscellaneous

Syphilis and other treponematoses (clinical and therapy)

Syphilitic arteritis involving proximal coronary arteries
A HERSKOWITZ, C SANGHO, AND SM FACTOR (Albert Einstein College of Medicine, New York, USA). *N Y State J Med* 1980;80: 971-4.

Secondary syphilis with iris papules
LK SCHWARTZ AND GR O'CONNOR (University of California, San Francisco, USA). *Am J Ophthalmol* 1980;90:380-4.

Syphilis (serology and false-positive phenomenon)

A case of trichinosis with symptoms and false-positive serology of syphilis
Th GAMBY, Y MOURNIER, M PIZZI, J DEVAUX, AND Y PRIVAT (Hotel Dieu, Marseilles, France). *Ann Dermatol Venereol* 1980; 107:683-6.

Circulating anticoagulant and serological tests for syphilis
Y SHOENFELD, E SHAULIAN, M SHAKLAI, J KRUGLACK, E FEUERMAN AND J PINKHAS (University of Tel Aviv, Israel). *Acta Derm Venereol* 1980;60:365-7.

Further studies with the fluorescent treponemal antibody absorption double staining procedure
PT MOTE, EF HUNTER, CM SCHUBERT, AND JC FEELEY (Center for Disease Control, Atlanta, USA). *J Clin Microbiol* 1980;12: 402-5.

Syphilis (pathology and experimental)

Detection of circulating immune complexes in the sera of rabbits with experimental syphilis: possible role of immunoregulation
RE BAUGHN, KSK TUNG, DM MUSER (Baylor College of Medicine, Houston, USA). *Infect Immun* 1980;29:575-82.

Long-term incorporation of tritiated adenine into deoxyribonucleic acid or ribonucleic acid by *Treponema pallidum* (Nichol's strain)
SJ NORRIS, JN MILLER, AND JA SYKES (University of California, San Diego, USA). *Infect Immun* 1980;29:1040-9.

Gonorrhoea (clinical)

Gonorrhoea presenting as "sterile" pyuria
B CHATTOPADHYAY AND I HALL (Whipps Cross Hospital, London, UK) *Br Med J* 1980;281:841-2.

Circumscribed peritonitis of genital origin or gonococcal perihepatitis. Fitz-Hugh-Curtis syndrome
JC BOGNEL, K MALVIN, JP LEVY, AND P HADCHOWEL (Hôpital St Camille, Bry-sur-Marne, France) *Nouv Presse Med* 1980; 9:2057-60.

Gonococcal tenosynovitis—dermatitis and septic arthritis
SE THOMPSON, NF JACOBS, F ZACARINS, MF REIN, AND JA SHULMAN (Center for Disease Control, Atlanta, USA) *JAMA* 1980;244: 1101-2.

Gonorrhoea (microbiology)

Rapid presumptive diagnosis of gonococcal cervicitis by the limulus lysate assay
VA SPAGNA, RB PRIOR, AND RL PERKINS (Ohio State University, Columbus, USA). *Am J Obstet Gynecol* 1980;137:595-9.

Forty women who had sought treatment at a venereal diseases clinic because of symptoms of vaginal discharge or abdominal pain, or both, were included in the study: all patients had uncomplicated cervicitis with a purulent vaginal discharge. Cervical secretions (0.1 ml) were aspirated from the endocervical os by means of a sterile 1-ml pipette equipped with a rubber suction bulb and transferred to 1 ml of pyrogen-free water. Specimens were frozen at -20°C before testing by the limulus lysate assay (LLA); this assay depends on the ability of minute amounts of endotoxin elaborated by Gram-negative bacteria to gel a lysate prepared from washed amoebocytes of the horseshoe crab, *Limulus polyphemus*. Material from the endocervical canal was also cultured on Thayer-Martin medium for gonococci, on blood agar plates for aerobic and anaerobic bacteria, on MacConkey agar for Gram-negative enteric organisms, and on peptone-starch-dextrose agar for *Haemophilus vaginalis*. Gram-stained smears of cervical exudate were also examined for evidence of gonococcal infection.

Eleven (61%) of 18 patients with culture-proven gonorrhoea had positive Gram-stained smear results and 17 (94%) of 18 had positive LLA results when secretions were tested at a 1/800 dilution: all 18 gave positive results when tested at a 1/200 dilu-

tion. There were eight patients with nongonococcal cervicitis in whom other Gram-negative bacteria were isolated: the LLA gave negative results in all eight patients when secretions were tested at a 1/800 dilution but was reactive in four (50%) at a 1/200 dilution. In-vitro experiments to compare the sensitivity of the LLA with approximate numbers of *Neisseria gonorrhoeae* and other Gram-negative organisms suggested that the LLA was more sensitive in detecting small numbers of gonococci than certain other common Gram-negative bacteria (in experiments based on viable counts the fragility of the gonococcus could influence results in favour of its own sensitivity).

The LLA, because of its rapidity and simplicity, is of potential value for "on-the-spot" diagnosis. However, it remains to be shown whether the reactivity is as high in women with gonorrhoea who do not have a purulent cervical discharge.

H Young

Combining cervical and anal-canal specimens for gonorrhoea on a single culture plate

FN JUDSON AND BA WERNES (University of Colorado, Denver, USA). *J Clin Microbiol* 1980; 12: 216-9.

To reduce the cost of detecting gonorrhoea, we studied the effect on diagnostic sensitivity of combining two culture specimens on the same plate of modified Thayer-Martin medium, using specimens from 7787 women seen consecutively in the clinic. There was no significant difference ($P > 0.05$) between one cervical and one anal-canal specimen placed on separate plates (C,A) and these two specimens combined but spaced apart on a single plate (C/A), or between two cervical specimens combined but spaced apart on the same plate (C/C) and C/A. Therefore, C/C, C/A, and C,A have equivalent diagnostic sensitivities. C/A detected 5.68% more women with gonorrhoea than did a single cervical culture (C) ($P < 0.001$). If C/A were to replace C,A for culture specimens from women seen in venereal disease clinics and C for specimens taken and cultured outside venereal disease clinics, gonorrhoea control programmes in the United States could realise savings in excess of \$2.5 million a year.

Authors' summary

The occurrence of 1,2-oxidoreductase in microorganisms and its use as a possible diagnostic marker for *Neisseria gonorrhoeae*

MM TAKEGUCHI, KA LIVSEY, CC DETAR, HC McDONALD, DK SMITH, PA SIMON, AND HH WEETALL (Corning Glass Works, New York, USA). *J Gen Microbiol* 1980; 119: 459-64.

The cervical microbial flora of 25 women and stock cultures of various microorganisms which may be present in the human female cervix were examined using a fluorimetric assay for 1,2-propanediol oxidoreductase. Results indicated that only members of the genera *Neisseria* and *Acinetobacter* possess appreciable activities of the enzyme, whose physiological function is not yet known. The activity of this enzyme in *N. gonorrhoeae* appeared to be significantly higher than the activities observed in most of the other *Neisseria* species and in the *Acinetobacter* species. These results indicated that it may be possible to utilise this enzyme as a presumptive diagnostic marker for *N. gonorrhoeae* in cervical secretions. 1,2-Propanediol oxidoreductase may also be of taxonomic significance for the classification of various bacterial species.

Authors' summary

Antigenic specificity of antibodies in vaginal secretions during infection with *Neisseria gonorrhoeae*

EC TRAMONT, J CIAK, J BOSLEGO, DG McCHESNEY, CC BRINTON AND W ZOLLINGER (Walter Reed Army Institute of Research, Washington DC, USA). *J Infect Dis* 1980; 142: 23-30.

Antibodies in genital secretions of patients with gonorrhoea have been shown to inhibit the attachment of gonococci to epithelial cells. The gonococcal antigens for which these antibodies are specific were studied by absorption of the genital secretions from a patient infected with gonorrhoea with purified lipopolysaccharide, outer membrane complex, or purified pili of homologous *Neisseria gonorrhoeae* and measurement of the reduction of inhibition of attachment of the gonococci to epithelial cells. The removal of antibodies was documented with the use of a solid-phase radioimmunoassay, in which the amount of antibody in the absorbed secretions that bound to a specific gonococcal antigen was shown to be reduced compared with the

amount of antibody in unadsorbed secretions. The antibody in the secretions that inhibited attachment was removed primarily by adsorption with the homologous pili, not with homologous lipopolysaccharide. A preparation of the homologous outer membrane complex that contained pili, cell-wall proteins, and lipopolysaccharide also blocked the inhibitory antibody.

Authors' summary

Effect of environment on sensitivity of *Neisseria gonorrhoeae* to *Pseudomonas aeruginosa* bacteriocine

DC STEIN, BH HEBELER, AND FE TONG (University of Rochester, New York, USA). *Infect Immun* 1980; 29: 507-11.

Pyocin inhibition of *Neisseria gonorrhoeae*: mechanism of action

SA MORSE, BV JONES, AND PG LYSKO (University of Oregon, Portland, USA). *Antimicrob Agents Chemother* 1980; 18: 416-23.

Effect of steroid hormones on *Neisseria gonorrhoeae*

PG LYSKO AND SA MORSE (University of Oregon, Portland, USA). *Antimicrob Agents Chemother* 1980; 18: 281-8.

Selectivity for human genital mucosa of the toxic factor elaborated by *Neisseria gonorrhoeae*

AP JOHNSON, ZA MCGEE, PH ARGABRITE, MA MELLY, AND D TAYLOR-ROBINSON (Clinical Research Centre, Harrow, UK). *FEMS Microbiol Letters* 1980; 8: 29-32.

High-frequency conjugal transfer of a gonococcal penicillinase plasmid

GD BISWAS, EY BLACKMAN, AND PF SPARLING (University of North Carolina, Chapel Hill, USA). *J Bacteriol* 1980; 143: 1318-24.

Evaluation of a candle-jar system in culture diagnosis of gonorrhoea

H GNARPE AND L SVENSSON (Gavlesjukhus, Gavle, Sweden). *Acta Derm Venereol* 1980; 60: 368-70.

Evaluation of four methods for isolation of *Neisseria gonorrhoeae*

BL CARLSON, MS HALEY, NA TISEI, AND WM McCORMACK (Massachusetts Department of Public Health, Boston, USA). *J Clin Microbiol* 1980; 12: 301-3.

In-vitro activity of Ro 13-9904, cefuroxime, cefoxitin, and ampicillin against *Neisseria gonorrhoeae*

TT YOSHIKAWA, SA SHIBATA, P HERBERT, AND PA OILL (University of California, Los Angeles, USA). *Antimicrob Agents Chemother* 1980; 18:355-6.

Resistance to penicillin and identification of penicillinase-producing *Neisseria gonorrhoeae* among clinical isolates in Thailand

JW CRUM, C DUANGMANI, S VIBULYASEKHA, AND K SUTHISOMBOON (Fort Knox, USA). *Antimicrob Agents Chemother* 1980; 18:360-1.

Auxotypes of *Neisseria gonorrhoeae* isolated from localised and disseminated infections in Montreal

PL TURGEON AND MJ GRANGER (Hôpital St Luc, Montreal, Canada). *Can Med Assoc J* 1980; 123:381-6.

Non-specific genital infections

A mouse model of pneumonitis induced by *Chlamydia trachomatis*

W-J CHEN AND C-C KUO (University of Washington, Seattle, USA). *Am J Clin Pathol* 1980; 100:365-82.

Identification of *Chlamydia trachomatis* in cell culture

V MOSINGERLANDGREN AND D PETZOLDT (University of Heidelberg, West Germany) *Zentralbl Bakteriol* 1980; 246:555-61.

The role of *Chlamydia trachomatis* in genital-tract and associated diseases

D TAYLOR-ROBINSON AND BJ THOMAS (Clinical Research Centre, Harrow, UK). *J Clin Pathol* 1980; 33:205-33.

Chlamydial antigens stabilized with formalin for use in the microimmuno-fluorescence test

L HANNA AND H KESHISHYAN (University of California, San Francisco, USA). *J Clin Microbiol* 1980; 12:409-12.

Erythema nodosum in chlamydial infection

M KOUSA, P SAIKKU, AND L KANERVA (University of Helsinki, Finland). *Acta Derm Venereol* 1980; 60:319-22.

***Chlamydia trachomatis* peritonitis and ascites following appendectomy**

R LANNIGAN, G HARDY, R TANTON, AND TJ MARRIE (Public Health Laboratory, Halifax, Canada). *Can Med Assoc J* 1980; 123:295-7.

Difference in the virulence of *Ureaplasma urealyticum* isolates

M FODOR (University of Budapest, Hungary). *Acta Microbiol Acad Sci Hung* 1980; 27:161-8.

Ureaplasma urealyticum was isolated from 62% of 561 patients with various genitourinary disorders and from 70% of 74 asymptomatic pregnant women. A number of strains were inoculated into the kidney of mice, and in a proportion the organisms persisted and could be reisolated from the kidney and occasionally from the uninfected kidney and bladder as well. Persistence of over 10 days was observed. There was good correlation between persistence of organisms in the mice and clinical abnormalities of patients who suffered from urethritis, colpitis, or sterility. Except in one patient *U. urealyticum* was the only agent isolated. All the mice gave bacteriologically negative results after three weeks. While the author has not succeeded in creating an animal model for *U. urealyticum* he feels that the mouse inoculation method is valuable for demonstrating differences in virulence. (Unfortunately *Chlamydia trachomatis* was not included in the investigation; nevertheless this contribution appears to be an interesting one.)

G W Csonka

Reiter's disease

Ocular inflammation in Reiter's disease after *Salmonella* enteritis

M SAARI, A VILPPULA, A LASSUS, M LEIRISALA, AND R SAARI (University of Tampere, Finland). *Am J Ophthalmol* 1980; 90:63-8.

A renal lesion in a woman with Reiter's disease

RR BAILEY, AF BURRY, DL FRY, TMJ MALING, AND CU McRAE (Christchurch Hospital, Christchurch, New Zealand). *Clin Nephrol* 1980; 13:239-41.

Genital herpes

Rapid typing of herpes simplex virus isolates by deoxyribonucleic acid:

deoxyribonucleic acid hybridization
AR BRANTIGAM, DD RICHMAN, AND MN OXMAN (University of California, San Diego). *J Clin Microbiol* 1980; 12:226-34.

Candidosis

Incidence of polyene-resistant yeasts recovered from clinical specimens

JD DICK, WG MERZ, AND R SARAL (Johns Hopkins School of Medicine, Baltimore, USA). *Antimicrob Agents Chemother* 1980; 18:158-63.

Mode of action of miconazole on *Candida albicans*—effect on growth, viability and K⁺ release

JE COPE (University of Liverpool, UK). *J Gen Microbiol* 1980; 119:253-6.

Trichomoniasis

Immunocytochemical identification of trichomonads

BD BENNETT, J BAILEY, AND WA GARDNER (Nashville Veterans Administration Hospital, Tennessee, USA). *Arch Pathol Lab Med* 1980; 104:247-9.

This brief but interesting paper describes the preparation of a rabbit anti-*Trichomonas vaginalis* antiserum and its use with an immunoperoxidase technique to locate organisms of *T. vaginalis* in both smears and rehydrated paraffin sections. The authors hope to use this method to study the histopathology of trichomoniasis; *T. vaginalis* is, however, often difficult to identify when fixed and stained, and the method could be useful in a number of studies.

J P Ackers

Immunoperoxidase staining of *Trichomonas vaginalis* in cytologic material

CM OHARA, WA GARDNER, AND BD BENNETT (Nashville Veterans Administration Hospital, Tennessee, USA). *Acta Cytol* 1980; 24: 448-51.

Identification of *Trichomonas vaginalis* in Gram-stained smears

RL SOBREPENA (St Therese Hospital, Waukegan, Illinois, USA). *Lab Med* 1980; 11: 558-60.

Isolation of *Trichomonas vaginalis* resistant to metronidazole (letter)

R HEYWORTH, D SIMPSON, GJC McNEILLAGE, DHH ROBERTSON, AND H YOUNG (University of Edinburgh, UK). *Lancet* 1980; ii: 478-80.

Metronidazole for vaginal trichomoniasis

WD HAGER, ST BROWN, SJ KRAUS, CSK PERIS, GJ PERKINS, AND M HENDERSON (University of Washington, Seattle, USA). *JAMA* 1980; 244: 1219-20.

Central nervous system toxicity associated with metronidazole therapy

RK KUSUMI, JF PLOUFFE, RH WYATT, AND RJ FASS (Ohio State University, Columbus, USA). *Ann Int Med* 1980; 93: 59.

Other sexually transmitted diseases

Chronic proctitis in male homosexuals due to lymphogranuloma venereum

JS LEVINE, PD SMITH, AND WR BRUGGE (University of Colorado, Denver, USA). *Gastroenterol* 1980; 79: 563-5.

Although lymphogranuloma venereum (LGV) is a rare cause of proctitis, this diagnosis was considered likely in three homosexual patients (two of whom were partners). These patients presented with anal discharge, anal pain, and rectal bleeding. A clinical diagnosis of proctitis was supported by histological findings—a dense infiltration with acute and chronic inflammatory cells. Infection with *Giardia lamblia* was found in one patient, and *Neisseria gonorrhoeae* was isolated from the rectum of the other two. Despite appropriate chemotherapy (with metro-

nidazole in the first case and with penicillin and spectinomycin in the other two) symptoms did not improve. At this time, the serum titres of complement-fixation antibodies against LGV were found to be 256, <8, and <8 respectively; four weeks later serum from the second man had a titre of 32. Based on serological findings and the clinical response to tetracycline and trimethoprim and sulphamethoxazole therapy, LGV seemed to be the most likely diagnosis in each case.

(The LGVCT uses a group antigen, and it is possible that two of the patients may have been infected with oculogenital rather than LGV serotypes of *Chlamydia trachomatis*.)

A McMillan

Isolation and identification of *Haemophilus ducreyi* in a clinical study

FO SOTTNEK, JW BIDDLE, SJ KRAUS, RE WEAVER, AND JA STEWART (Center for Disease Control, Atlanta, USA). *J Clin Microbiol* 1980; 12: 170-4.

Experimental transmission of hepatitis B virus by semen and saliva

RM SCOTT, R SNITBHAN, WH BANCROFT, HJ ALTER, AND M TINGPALAPONG (Armed Forces Research Institute of Medical Science, Bangkok, Thailand). *J Infect Dis* 1980; 142: 67-71.

Public health and social aspects

Reporting of gonorrhea by private physicians: a behavioral study

R ROTHENBERG, DC BROSS, AND TM VERNON (Center for Disease Control, Atlanta, USA). *Am J Publ Hlth* 1980; 70: 983-6.

Self-reported behavior patterns of patients attending a sexually transmitted disease clinic

MA KRAMER, SO ARAL, AND JW CURRAN (Center for Disease Control, Atlanta, USA). *Am J Publ Hlth* 1980; 70: 997-9.

Sexually transmitted diseases: a waste of military manpower

DPJ MURRAY (British Army Hospital, Münster, West Germany). *J R Arm Med Corps* 1980; 126: 83-7.

Miscellaneous

Perihepatitis in pelvic inflammatory disease—association with intrauterine contraception

M ONSRUD (Aker Hospital, Oslo, Norway). *Acta Obstet Gynaecol* 1980; 59: 69-71.

Two hundred and seventy-four non-selected cases of acute pelvic inflammatory disease (PID) were investigated by laparoscopy for perihepatitis (Fitz-Hugh-Curtis syndrome, FHCS).

Of all patients 13.8% (38) showed signs of perihepatitis with patchy fibrinous or purulent deposits on the liver surface, and increased vascularisation or haemorrhages were found on the subdiaphragmatic peritoneum. Four of these patients had band adhesions indicating an older infection.

Most of the patients with FHCS presented with right upper-quadrant pain and tenderness. Fourteen of the 38 patients however were asymptomatic and 21 patients were primarily admitted to a gynaecological department.

FHCS was studied in 120 patients using intrauterine contraception (IUCD) and was found in 18.3% compared with 10.4% of the remaining patients not using an IUCD. Out of the coil-users, FHCS was found in 42.8% of the "recent insertion" (less than six weeks) group compared with 8.2% of the "longer insertion" group ($p < 0.01$).

Bacteriological cultures were not available but as far as assessment of IUCDs was concerned, it was felt that the traumatising effect of IUCD insertion facilitated the spread of inflammatory material either by lymphatic, haematogenous, or direct intra-abdominal route.

J N Harvey

Intestinal parasitic infections in homosexual men: prevalence, symptoms, and factors in transmission

JS KEYSTONE, DL KEYSTONE, AND EM PROCTOR (Toronto General Hospital, Toronto, Canada). *Can Med Assoc J* 1980; 123: 512-4.

In a controlled study 67.5% of 200 homosexual men but only 16% of 100 heterosexual men were found to be infected with intestinal parasites. *Entamoeba histolytica* was isolated from 27% of the homosexual and 1% of the heterosexual men, and *Giardia lamblia* was isolated from

13% of the homosexual and 3% of the heterosexual men. The presence of symptoms could not be correlated with infection except when the infection was caused by more than one organism, including *G lamblia*. Symptoms were much more common in both infected and uninfected homosexuals than in heterosexuals. Among the homosexual men recent foreign travel, living in a homosexual household, and promiscuity were not correlated with intestinal parasitic infection, but cleansing of the anus before anal sex was associated with a significantly lower prevalence of infection. These findings suggest that the male homosexual community may be an important reservoir of potentially pathogenic protozoa.

Authors' summary

Campylobacter proctitis in a homosexual man

TC QUINN, L COREY, RG CHAFFEE, MD SCHUFFLER, AND KK HOLMES (University of Washington, Seattle, USA). *Ann Int Med* 1980;93:458-9.

There is an increasing awareness that infection with *Campylobacter fetus* ssp *jejuni* may produce proctocolitis. A 22-year old homosexual patient attending a sexually transmitted diseases clinic developed blood-stained diarrhoea, perianal pain, and anal discharge. A clinical diagnosis of proctitis, based on the finding of erythematous mucosa, decreased vascular pattern, and the presence of mucopus on the rectal walls, was confirmed by histological findings. *Campylobacter fetus* ssp *jejuni* was isolated on culture of mucosal material. There was no microbiological evidence of concomitant gonococcal, chlamydial, *Shigella*, *Salmonella*, or viral infection.

A McMillan

Anaerobic bacteria in non-specific vaginitis

CA SPIEGEL, R AMSEL, D ESCHENBACH, F SCHOENKNECHT, AND KK HOLMES (University of Washington, Seattle, USA). *N Engl J Med* 1980;303:601-7.

To study the cause of non-specific vaginitis we analysed vaginal fluid from normal

women and from 53 women with non-specific vaginitis using quantitative anaerobic cultures and gas-liquid chromatography for short-chained organic-acid metabolites of the microbial flora. In normal vaginal fluid lactate was the predominant acid, and the predominant organisms were lactobacillus and streptococcus species (lactate producers). In non-specific vaginitis lactate was decreased, whereas succinate, acetate, butyrate, and propionate were increased; the predominant flora included *Gardnerella (Haemophilus) vaginalis* (acetate-producer) and anaerobes, which included bacteroides species (succinate-producers and peptococcus species—butyrate- and acetate-producers). After metronidazole therapy, symptoms and signs of non-specific vaginitis cleared, butyrate and propionate disappeared, and lactate and lactate-producing organisms became predominant. We conclude that certain anaerobes act with *G vaginalis* as causes of non-specific vaginitis, and that a high ratio of succinate to lactate in vaginal fluid is a useful indicator in the diagnosis of this condition.

Authors' summary

Metronidazole in treatment against Haemophilus vaginalis (Corynebacterium vaginale)

ED RALPH AND YE AMATNIEKS (University of Western Ontario, London, Canada). *Antimicrob Agents Chemother* 1980;18:101-4.

The rate of bactericidal activity and inactivation of metronidazole was studied in time-kill curves with *Haemophilus vaginalis (Corynebacterium vaginale)*. The minimum inhibitory concentrations of metronidazole for the eight strains tested ranged from 4 to 16 µg/ml. At a concentration of 20 µg/ml metronidazole demonstrated a slow cidal effect against exponential-phase organisms, requiring 24 to 48 hours for completion. Inactivation of metronidazole during the time-kill curve was quite variable and averaged 28% of the starting concentration after 48 hours. Against stationary-phase organisms (inoculum, 10¹⁰ to 10¹¹ colony-forming units/ml) a slow cidal effect was also seen,

with an average inactivation of metronidazole of 38% after 48 hours. At a subinhibitory concentration of 5 µg/ml, metronidazole was inactivated to the greatest degree (57% after 48 hours). Therefore, in contrast to earlier studies in which metronidazole was rapidly and consistently cidal within four hours against obligate anaerobes and was almost completely inactivated by eight hours the bactericidal effect of metronidazole against *H vaginalis* in this study was much slower and was associated with a variable and slower rate of inactivation.

Authors' summary

Amebae resembling Entamoeba gingivalis in the genital tracts of IUD users

M DEMORAESRUEHSEN, RE McNEILL, JK FROST, PK GUPTA, LS DIAMOND, AND BM HONIGBERG (US Public Health Hospital, Baltimore, USA). *Acta Cytol* 1980;24:413-20.

A taxonomic study of Gardnerella vaginalis (Haemophilus vaginalis) Gardner and Dukes 1955

P PIOT, E van DYCK, M GOODFELLOW, AND S FALKOW (Institute of Tropical Medicine, Antwerp, Belgium). *J Gen Microbiol* 1980;119:373-96.

Urethritis caused by Neisseria meningitidis

JJ KAROLUS, AL GANDELMAN, AND BA NOLAN (Connecticut State Department of Health Laboratory, Hartford, USA). *J Clin Microbiol* 1980;12:284-5.

In-vitro demonstration of specific immunological hypersensitivity to scabies mite

ES FALK AND R BOLLO (University of Tromsø, Norway). *Br J Dermatol* 1980;103:367-73.

The origin and diagnosis of "non-specific" vaginitis

Anonymous. *N Engl J Med* 1980;303:637.